

Remarks

The Applicants note that the Office Action Summary does not indicate whether the drawings filed in the application are acceptable. Confirmation of their acceptability is respectfully requested.

The Applicants further note that the Office Action Summary does not acknowledge the Preliminary Amendment filed on March 22, 2004. Acknowledgment is respectfully requested.

Claims 1-7 are objected to because of certain informalities and/or defects. The Office Action lists several items which require clarification. Attached hereto is a copy of Figures 9A and 9B of the application, annotated to clarify the following explanation.

With regard to item (A) of the Office Action, the annotated versions of Figures 9A and 9B attached hereto illustrate clearly the relationships among the unit marks and the patterns. Specifically, as shown in Figure 9A, mesa-type unit marks (six shown in Figure 9A) each include trench patterns between the individual mesas. Also, trench type unit marks (six shown in Figure 9B) each include mesa patterns between the individual trenches. The term "close pattern" was used to refer to the fact that the individual mesas in the mesa-type unit marks and the individual trenches in the trench-type unit marks are spaced close enough together to insure that a dishing phenomenon caused by chemical mechanical polishing is eliminated. The language has been deleted from the claims.

With regard to item (B) of the Office Action, by way of example, Figures 9A and 9B show each unit mark including two mesas with a trench between them or two trenches with a

mesa between them. The number of mesas or trenches in each unit mark is not critical to the invention and need not be included in the claims.

With regard to item (C), the Examiner is correct that a mesa pattern can only be formed in a trench-type unit mark, and a trench pattern can only be formed in a mesa-type unit mark. This fact would be well known to one of skill in the art.

With regard to item (D), the pitch  $P'$ , as shown in Figures 9A and 9B, is the pitch of the mesa (sub-mesa) or trench (sub-trench) patterns formed in each of the patterns of the trench-type unit mark or the mesa-type unit mark.

Regarding item (E) of the Office Action,  $n'$  is the quantity or number of mesa or trench patterns formed in each of the trench-type or mesa-type unit marks. That is,  $n'$  can be regarded as the number of sub-trenches or sub-mesas formed in each of the unit marks.

With regard to item (F),  $t'$  is the width of a single mesa (sub-mesa) or trench (sub-trench) formed in each of the trench-type unit marks or the mesa-type unit marks.

With regard to claim 4, the claim is canceled, and its subject matter is incorporated into independent claim 1. The term objected to by the Examiner has been corrected in independent claim 1.

In view of the amendments to the claims and the foregoing remarks, it is believed that the objections to the claims are overcome, and reconsideration of the objections is requested.

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Mizutani, *et al.* (U.S. Patent Number 5,601,957). Claims 4-7 are rejected under 35 U.S.C. § 103(a) as being

unpatentable over Mizutani, *et al.* in view of Shiraishi (U.S. Patent Number 6,285,455). In view of the amendments to the claims and the following remarks, rejections are respectfully traversed, and reconsideration of the rejections is requested.

The claims are amended to recite specific details of the alignment mark of the invention. Specifically, the claims are amended to recite the specific formula which defines the pitch P' of the individual mesas in mesa-type unit marks and trenches in the trench-type unit marks. Neither of the Mizutani, *et al.* and Shiraishi teaches or suggests this specific pitch in the specific unit marks set forth in the amended claims. Accordingly, there is also no combination of the references which would result in providing such teaching or suggestion.

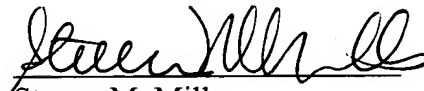
Since Mizutani, *et al.* fails to teach or suggest the specific pitch P' now set forth in the amended claims, it is believed that the claims are allowable over Mizutani, *et al.*, and, therefore, reconsideration of the rejections of claims 1-3 under 35 U.S.C. § 102(b) based on Mizutani, *et al.* is respectfully requested.

Since neither Mizutani, *et al.* or Shiraishi, taken alone or in combination, teaches or suggests the alignment mark having the specific pitch P' set forth in the amended claims, then it is believed that the claims are allowable over the combination of Mizutani, *et al.* and Shiraishi. Accordingly, reconsideration of the rejections of claims 4-7 under 35 U.S.C. § 103(a) based on Mizutani, *et al.* and Shiraishi is respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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